Work Order ID 72595

Wednesday, August 03, 2011 1:01:48 PM

Item ID: D117-762-041 **Accept** **Setup Start** **Stop**

Revision ID:

Item Name: Replacement Skidtube

Start Date: 8/3/2011 **Start Qty:** 1.00 **Cust Item ID:**

Required Date: 8/8/2011 **Req'd Qty:** 1.00 **Customer:**

Reference:

Approvals: **Process Plan:** // **Date:** 11-08-3 **Tooling:** **Date:** **Run Start** **Stop**

QC: **Date:** **SPC (Y/N):** **Date:**

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp

Draw Nbr	Revision Nbr
D3492	C
D3582	Rev A

100 0.00

DOCUMENT CONTROL

DC

Document Control

Memo 0.00

Photocopy bluefile & type labels per PPP D117-762-041 CHG001

N/A

120 0.00

BENDING MACHINE - SKIDTUBES

CNC Bend 1

CNC Delta 100 Bender

Memo 0.00

Bend tube as per program D3582 on CNC Bender and Dwg D3582. Folio 3, use bending aid DT9632

2- cut fwd end of tube as per dwg

1 0 BEH/08/08

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____

Resolution: _____ **Disposition:** _____ **QA: N/C Closed:** _____ **Date:** _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries.

Work Order ID 72595

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Revision ID: **Stop**

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Required Date: 8/8/2011 **Req'd Qty:** 1.00 **Customer:**

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Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____ **Run Start**

QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____ **Stop**

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130		0.00							
Skidtubes	Skidtubes	0.00							
Skidtubes									

Memo

1-Cut Aft end using DT8185

2-Deburr ends

3-Drill Aft Cap holes using DT8678 ***DO NOT OPEN AFT CAP HOLE***

4-Locate DT 8973 & Drill Ground wire hole on top of Tube.

5-Install 3/16 cleco in Ground wire hole ,then drill all X-Bolt holes using 3/16" drill.

6-Drill pilot holes for wearplates using DT8900

7-Open wearplate holes to Ø19/64" (0.297") as per Dwg D3582.

8- open ground wear holes to 0.391" as per section B-B

9-Open Aft Cap holes using .209" drill.

BE 11/08/09

10-Drill pilot holes for section D-D and E-E. Holes must be laid out by hand. Mark out Center line and make sure that 6.65 and 5.906 measurements are respected. Double check before drilling, do not open holes to finish size.

DL 11/08/11

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
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QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
140	Skidtubes	0.00							
Skidtubes	**Memo**	0.00							
Skidtubes	1-Weld fwd cap D2964 per dwg D3582 and QSI 004 A/R AL ROD Batch: M112860M 115778 BE 11/08/11 2-Grind flush BE 11/08/11								
150	QC10- Inspect visual per QSI004- ground welds	0.00							
QC	**Memo**	0.00							
Quality Control									
160	QC5- Inspect part completeness to step on W/O	0.00							
QC	**Memo**	0.00							
Quality Control									

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____

Resolution: _____ **Disposition:** _____ **QA: N/C Closed:** _____ **Date:** _____

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NOTE: Date & initial all entries

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QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
170	Chemical Conversion Coat per QSI005 4.1	0.00							
HandFinish	Memo	0.00				x1			DL 11/08/15
Hand Finishing									
180	QC3- Inspect Part Finish	0.00							
QC	Memo	0.00							11-8-15
Quality Control									

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
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Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____

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Reference:

Run Start **Stop**

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
190		0.00							
Skidtubes	Skidtubes								
Skidtubes	**Memo**	0.00							

1-Open X-Bolt holes to finish size as per Dwg D3582, all sections

2-Counter Sink X-BOLT holes as per Dwg D3582

3-Deburr and blow out chips from inside of tube, prep. tube for welding.

DL 11/08/15

4-Bond web as per Dwg D3582 & QSI 015
A/R 241 Sike Flex Batch: M117516
Exp Date: 12/01/15

5-Weld x-bolt spacers(D2973) as per Dwg D3582 section B-B.
A/R AL ROD Batch: M112060 BE 11/08/16

6-Grind welds flush BE 11/08/16

200	QC10- Inspect visual per QSI004- ground welds	0.00							
QC	**Memo**	0.00							
Quality Control									

S 11/08/17

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____

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NOTE: Date & initial all entries

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Run Start **Stop**

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
210	QC5- Inspect part completeness to step on W/O	0.00							
QC	Memo	0.00							
Quality Control									
215	Pressure Wash per QSI005 4.3	0.00							
HandFinish	Memo	0.00							
Hand Finishing	Touch-up alodine as per QSI								
220	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum	0.00							
Powdercoat	Memo	0.00							
Powder Coating	START TIME 12:00 OVEN TEMPERATURE: 320 °F FINISH TIME: 12:30								

Sulos/12

1X Ø m-L 11/08/23

1X Ø m-L 11/08/23

M 11745

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____

Resolution: _____ **Disposition:** _____ **QA: N/C Closed:** _____ **Date:** _____

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Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____ **Run Start**

QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____ **Stop**

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
230	QC3- Inspect Part Finish	0.00							
QC	**Memo**	0.00					1	BR	11-8-25
Quality Control									
250		0.00							
HandFinish	HandFinishing								
	Memo	0.00				1	BR	11-8-25	
Hand Finishing									

1-Inspect for Foreign objects

2-Install Aft cap as per Dwg D3582 Detail "C"
A/R 241 Sika Flex Batch: 118393
Exp Date: 12-05

3-Install Wearplates as per Dwg D3582 ,
Note:Install Bolt and washer on Ground Wire inserts on top of tube see section D-D of dwg D3582
*******Do not install bolts where indicated on Dwg(Note #6)******
A/R 241 Sika Flex Batch: 118343
Exp Date: 1205

4-assemble o'ring as per dwg D3492 and apply o'ring lube
A/R 55-o'ring lube batch: 114189

5- Wing Walk as per Dwg D3582 and QSI 005 4.4 118313

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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NOTE: Date & initial all entries

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Work Order ID 72595

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Item ID: D117-762-041 **Accept** **Setup Start** **Stop**

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Reference:

Run Start **Stop**

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
260	QC5- Inspect part completeness to step on W/O	0.00							
QC	**Memo**	0.00							
Quality Control									
270		0.00							
Packaging	Packaging								
Packaging	**Memo**	0.00							
	Identify and pack for shipping as per PPP D117-762-041 Location: PPP Rev:								
280	QC21- Final Inspection - Work Order Release	0.00							
QC	**Memo**	0.00							
Quality Control									

S 11/09/16

PPP 73207

11/9/16 C

11/9/19

MF

11-09-16

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____

Resolution: _____ **Disposition:** _____ **QA: N/C Closed:** _____ **Date:** _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Wednesday, August 03, 2011 1:01:53 PM

8

Work Order ID: 72595

Parent Item: D117-762-041

Parent Item Name: Replacement Skidtube

Start Date: 8/3/2011 **Required Date:** 8/8/2011

Start Qty: 1.00 **Required Qty:** 1.00

Comments: IPP Rev:A□07.06.11□New Issue□ EC
IPP Rev:B 08-02-22 change to revA as per dwg DD verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D3492-11		Manufactured	No			250	Each	18.0000	2	2		BR 11-8-25.	
Plug													
				Location			**Loc Qty**		**Loc Code**				
				FP			18						
					71863 ✓		18			2			
D3492-13		Manufactured	No			250	Each	35.0000	6	6		BR 11-8-25.	
Plug													
				Location			**Loc Qty**		**Loc Code**				
				FP			32						
					71848 ✓		32			6.			
				FP-B			3						
					46693		3						
D3492-9		Manufactured	No			250	Each	25.0000	2	2		BR 11-8-25.	
Plug													
				Location			**Loc Qty**		**Loc Code**				
				FP-A			25						
					46694 ✓		25			2			
D2962-150		Manufactured	No				Each	62.0000		1		BE 11/08/09	
3.540 Outer Tube, Extrut													
				Location			**Loc Qty**		**Loc Code**				
				HALL			62						
					59934		62			/			

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____

Resolution: _____ **Disposition:** _____ **QA: N/C Closed:** _____ **Date:** _____

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Picklist Print

Wednesday, August 03, 2011 1:01:54 PM

Work Order ID: 72595

Parent Item: D117-762-041

Parent Item Name: Replacement Skidtube

Start Date: 8/3/2011 **Required Date:** 8/8/2011

Start Qty: 1.00 **Required Qty:** 1.00

D2964	Manufactured	No	140	Each	11.0000	1	1	BEn/08/11
Cap								

Location	Loc Qty	Loc Code	
LG002	11		
64654	11		1

D2971	Manufactured	No	190	Each	6.0000	1	1	BE11/08/16
Cross Bolt Spacer								

Location	Loc Qty	Loc Code	
LG001	6		
44445	6		1

D3584-1	Manufactured	No	190	Each	0.0000	1	1	DL
Web		B74758					1	4/08/15
D2973	Manufactured	No	190	Each	112.0000	2	2	BE11/08/16
Cross Bolt Spacer								

Location	Loc Qty	Loc Code	
LG002	112		
14636	112		2

D3662-3	Manufactured	No	190	Each	7.0000	1	1	BE11/08/16
Crossbolt Spacer								

Location	Loc Qty	Loc Code	
LG001	7		
44456	7		1

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Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____

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Work Order ID: 72595

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Parent Item Name: Replacement Skidtube

Start Date: 8/3/2011 **Required Date:** 8/8/2011

Start Qty: 1.00 **Required Qty:** 1.00

D3662-1	Manufactured	No	190	Each	3.0000	3	3	
Crossbolt Spacer								

Location	Loc Qty	Loc Code
LG	3	
71799	1	
72258	2	

ALS4-1032-130	Purchased	No		Each	2,486.000		36	
Insert								

Location	Loc Qty	Loc Code
ST281	432	
117331	8	
118386	424	
ST282	2054	
117717	54	
118237	1744	
118312	256	

ALS4-428-165	Purchased	No		Each	501.0000		2	
Inserts								

Location	Loc Qty	Loc Code
FP	483	
117769	483	
FP-B	18	
114172	18	

D2965	Manufactured	No	250	Each	0.0000	1	1	
Cap, 105 Skidtube								

Dart Aerospace Ltd

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Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____

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Parent Item: D117-762-041

Parent Item Name: Replacement Skidtube

Start Date: 8/3/2011 **Required Date:** 8/8/2011

Start Qty: 1.00 **Required Qty:** 1.00

D3508-3	Manufactured	No		250	Each	1.0000	1	1	BR 11-8-25.
Wearplate									

Location	Loc Qty	Loc Code	
FP021 72169	1		1
38527	1		

D3508-9	Manufactured	No	72203.	250	Each	0.0000	1	1	BR 11-8-25.
Wearplate									
D3558-3	Manufactured	No		250	Each	11.0000	1	1	BR 11-8-25.
Gasket									

Location	Loc Qty	Loc Code	
FP014	11		
71651	1		
72170 ✓	10		1

D3558-9	Manufactured	No		250	Each	10.0000	1	1	BR 11-8-25
Gasket									

Location	Loc Qty	Loc Code	
FP014	10		
71212 ✓	10		1

D3558-11	Manufactured	No		250	Each	11.0000	1	1	BR 11-8-25.
Gasket									

Location	Loc Qty	Loc Code	
FP014	11		
72202 ✓	11		1

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
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Parent Item: D117-762-041

Parent Item Name: Replacement Skidtube

Start Date: 8/3/2011 **Required Date:** 8/8/2011

Start Qty: 1.00 **Required Qty:** 1.00

D3558-13	Manufactured	No		250	Each	15.0000	1	1	BR 11-8-25
Gasket									

Location	Loc Qty	Loc Code
FP014	15	
59558	15	

D3508-11	Manufactured	No		250	Each	10.0000	1	1	BR 11-8-25
Wearplate									

Location	Loc Qty	Loc Code
FP016	10	
72011	10	

D3508-13	Manufactured	No		250	Each	5.0000	1	1	BR 11-8-25
Wearplate									

Location	Loc Qty	Loc Code
FP016	5	
71027	5	

AN960JD10L	NAS1149D0332J Purchased	No	117087	250	Each	0.0000	2	2	2 BR 11-8-25
Washer									

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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Work Order ID: 72595

Parent Item: D117-762-041

Parent Item Name: Replacement Skidtube

Start Date: 8/3/2011 **Required Date:** 8/8/2011

Start Qty: 1.00 **Required Qty:** 1.00

AN3C4A BOLT	Purchased	No	250	Each	1,894.000	28	28	BL 11-8-25.

Location		Loc Qty	Loc Code	
ST350	118628.	1894		28.
	117313	2		
	117688	167		
	117795	163		
	117872	22		
	118012	500		
	118112	40		
	118451	1000		

AN3C5A Bolt	Purchased	No	250	Each	1,459.000	2	2	BL 11-8-25.

Location		Loc Qty	Loc Code	
FP-A		7		
	115835	7		
ST350		1452		
	116419	28		
	116549	42		
	117343	500		2
	117764	300		
	117872	82		
	118451	500		

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____

Resolution: _____ **Disposition:** _____ **QA: N/C Closed:** _____ **Date:** _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Wednesday, August 03, 2011 1:01:54 PM

Work Order ID: 72595

Parent Item: D117-762-041

Parent Item Name: Replacement Skidtube

Start Date: 8/3/2011 **Required Date:** 8/8/2011

Start Qty: 1.00 **Required Qty:** 1.00

AN960JD416L	NAS1149D0416J	Purchased	No	250	Each	19.0000	2	2	BR 11-8-25	
Washer										

Location	Loc Qty	Loc Code	
FP-B	17		
110153	17		2
ST298	2		
110153	2		

AN960C10L	NAS1149C0332R	Purchased	No	250	Each	0.0000	28	28 28.	BR 11-8-25	
washer										

118306.

AN4-4A		Purchased	No	250	Each	70.0000	2	2	BR 11-8-25	
Bolt										

Location	Loc Qty	Loc Code	
FP-B	24		
114615	24		2
ST356	46		
114615	46		

NAS1611-012		Purchased	No	250	Each	90.0000	6	6	BR 11-8-25	
O-RING										

Location	Loc Qty	Loc Code	
FP	80		
118384	80		6.
FP-A	10		
113845	10		

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____

Resolution: _____ **Disposition:** _____ **QA: N/C Closed:** _____ **Date:** _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Wednesday, August 03, 2011 1:01:54 PM

Work Order ID: 72595

Parent Item: D117-762-041

Parent Item Name: Replacement Skidtube

Start Date: 8/3/2011 **Required Date:** 8/8/2011

Start Qty: 1.00 **Required Qty:** 1.00

NAS1611-015 O-RING	Purchased	No	250	Each	131.0000	2	2	BR 11-8-25.

Location	Loc Qty	Loc Code	
FP-A	131		
115101	85		
116081 ✓	46		2

NAS1611-016 O-RING	Purchased	No	250	Each	84.0000	2	2	BR 11-8-25.

Location	Loc Qty	Loc Code	
FP-A	84		
112492 ✓	58		2
113524	26		

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____

Resolution: _____ **Disposition:** _____ **QA: N/C Closed:** _____ **Date:** _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

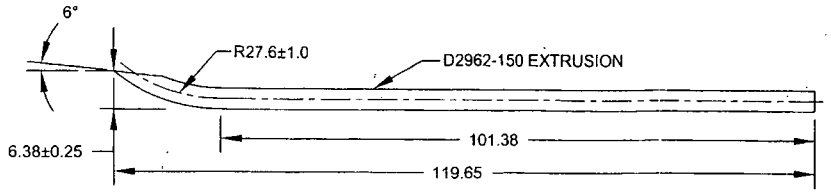
NOTE: Date & initial all entries

PARTS LIST FOR D3582-041 SKIDTUBE ASSEMBLY

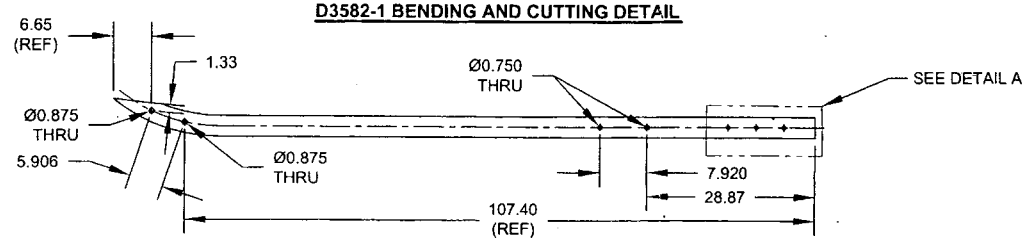
Qty	Part Number	Description
X	D3582-041	SKIDTUBE ASSEMBLY
1	D2962-150	EXTRUSION
1	D2964	CAP
1	D2965	CAP
1	D2971	CROSS BOLT SPACER
2	D2973	CROSS BOLT SPACER
2	D3492-049	PLUG ASSEMBLY
2	D3492-051	PLUG ASSEMBLY
6	D3492-053	PLUG ASSEMBLY
1	D3508-3	WEARPLATE
1	D3508-9	WEARPLATE
1	D3508-11	WEARPLATE
1	D3508-13	WEARPLATE
1	D3558-3	GASKET
1	D3558-9	GASKET
1	D3558-11	GASKET
1	D3558-13	GASKET
1	D3584-1	WEB
3	D3662-1	CROSS BOLT SPACER
1	D3662-3	CROSS BOLT SPACER
36	AELS-1032-130	INSERT
2	ALS7-428-165	INSERT
28	AN3C4A	BOLT
2	AN3-5A	BOLT
2	AN4-4A	BOLT
28	AN960C10L	WASHER
2	AN960JD10L	WASHER
2	AN960JD416L	WASHER

GENERAL NOTES:

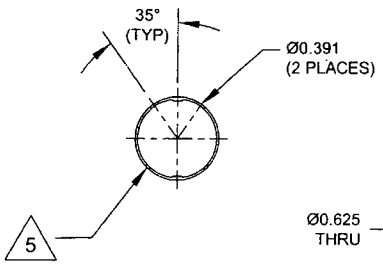
1) ALL DIMENSIONS ARE IN INCHES
2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
3) WELDING TO BE DONE PER DART QSI 004.
4) INSERT D3584-1 WEB TO LOCATION SHOWN OFF AFT END OF SKIDTUBE AND BOND WEB INTO OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241/-291 ADHESIVE PER DART QSI 015 AFTER BENDING.
5) USE DART DRILL TEMPLATE DT8900 TO LOCATE AND DRILL Ø0.297 HOLES (36 PLACES) FOR WEARSHOE INSERTS. INSTALL AELS-1032-130 PER SECTION G-G (36 PLACES) AFTER FINISH. SEAL WEARPLATE BOLTS WITH SIKAFLEX-241/-291.
6) DO NOT INSTALL AN3C4A BOLTS AND AN960C10L WASHERS IN INDICATED LOCATIONS.
7) FINISH:
   A) CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 PRIOR TO INSERTING D3584-1 WEB.
   B) POWDER COAT ASSEMBLY GLOSS WHITE (REF 4.3.5.1) PER DART QSI 005 4.3.
   C) ANTI-SKID PAINT AS INDICATED TO 1.00 ABOVE CENTER LINE PER DART QSI 005 4.4



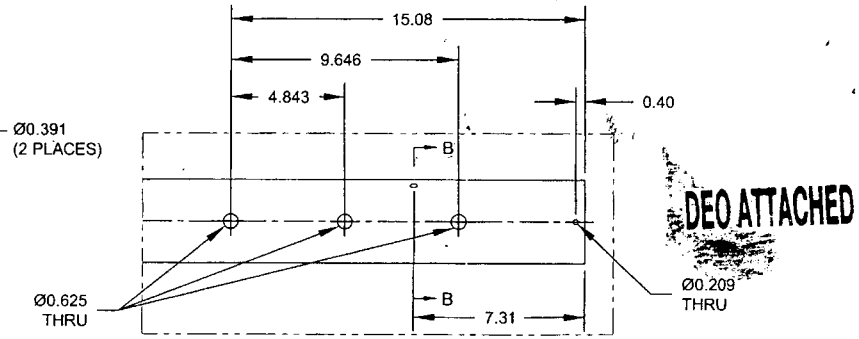
D3582-1 BENDING AND CUTTING DETAIL



D3582-1 DRILLING DETAIL



SECTION B-B
SCALE 1:5



DETAIL A
SCALE 1:5

DEO ATTACHED

RELEASED 07.11.22

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 72595

REV.	DESCRIPTION	BY	DATE
A	NEW ISSUE	PH	07.06.08

DESIGN	PH	DART AEROSPACE USA, INC PORT HADLOCK, WA	
DRAWN	PH		
CHECKED		DRAWING NO.	REV. A
MFG. APPR.		D3582	SHEET 1 OF 2
APPROVED		TITLE	SCALE
DE APPR.		BK 117 SKIDTUBE ASSEMBLY	1:20
DATE	07.06.08		

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11-08-3

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

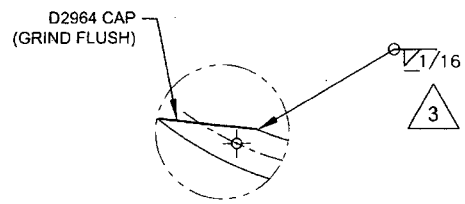
Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

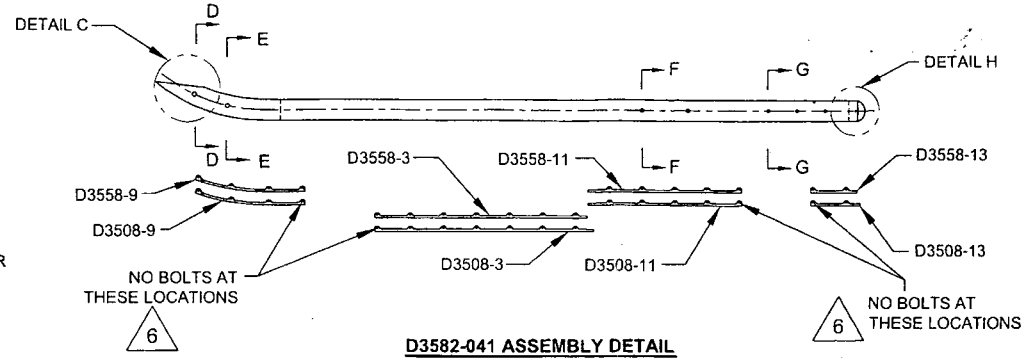
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

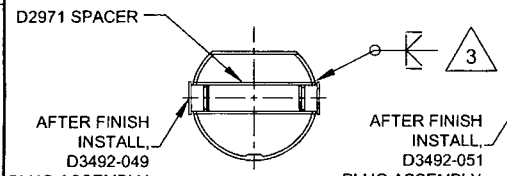
H:\fFORMS\Quality Assurance\approved QA\NCRWO RevE



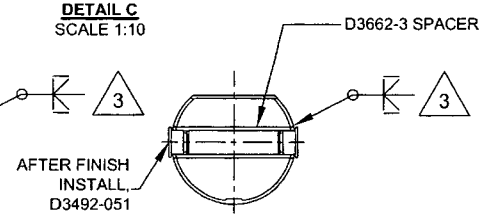
DETAIL C
SCALE 1:10



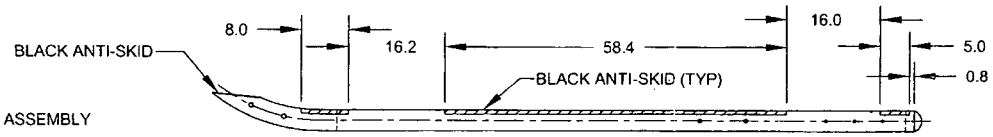
D3582-041 ASSEMBLY DETAIL



SECTION D-D
SCALE 3:10



SECTION E-E
SCALE 3:10



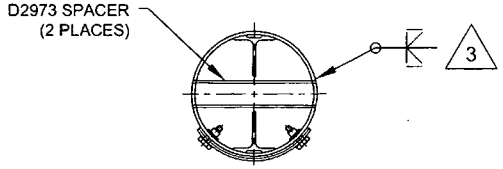
D3582-041 BLACK ANTI-SKID DETAIL

SECTION D-D NOTES
AFTER BENDING AND DRILLING ASSEMBLY
PERFORM THE FOLLOWING:
1. CHAMFER HOLE 0.030 x 45°
2. INSERT D2971 SPACER
3. WELD INTO PLACE AND GRIND FLUSH
4. PASS Ø0.750 DRILL TO REMOVE SPILL OVER
5. AFTER FINISH, INSTALL D3492-049 PLUG ASSEMBLY (2 PLACES)

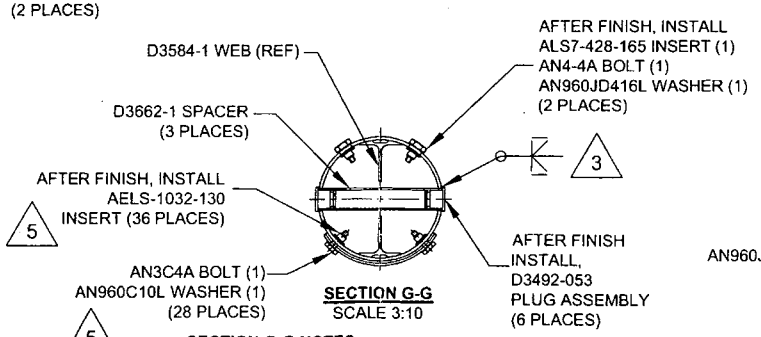
SECTION E-E NOTES
AFTER BENDING AND DRILLING ASSEMBLY
PERFORM THE FOLLOWING:
1. CHAMFER HOLE 0.030 x 45°
2. INSERT D3662-3 SPACER
3. WELD INTO PLACE AND GRIND FLUSH
4. PASS Ø0.672 DRILL TO REMOVE SPILL OVER
5. AFTER FINISH, INSTALL D3492-051 PLUG ASSEMBLY (2 PLACES)

72595

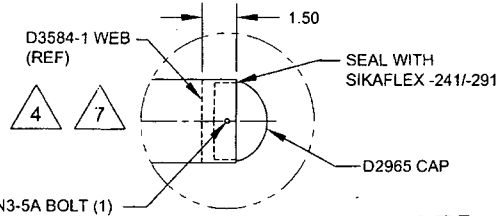
DEO ATTACHED



SECTION F-F
SCALE 3:10



SECTION G-G
SCALE 3:10



DETAIL H
SCALE 1:5

RELEASED
07.11.22

SECTION F-F NOTES
AFTER BENDING AND DRILLING ASSEMBLY
PERFORM THE FOLLOWING:
1. CHAMFER HOLE 0.030 x 45°
2. INSERT D2973 SPACER (2 PLACES)
3. WELD INTO PLACE AND GRIND FLUSH
4. PASS Ø0.625 DRILL TO REMOVE SPILL OVER

SECTION G-G NOTES
AFTER BENDING AND DRILLING ASSEMBLY
PERFORM THE FOLLOWING:
1. CHAMFER HOLE 0.030 x 45°
2. INSERT D3662-1 SPACER (3 PLACES)
3. WELD INTO PLACE AND GRIND FLUSH
4. PASS Ø0.515 DRILL TO REMOVE SPILL OVER
5. AFTER FINISH, INSTALL D3492-053 PLUG ASSEMBLY (6 PLACES)

DESIGN	AH	**DART AEROSPACE USA, INC** PORT HADLOCK, WA	
DRAWN	AH		
CHECKED		DRAWING NO.	REV. A
MFG. APPR.		D3582	SHEET 2 OF 2
APPROVED		TITLE	SCALE
DE APPR.		BK 117 SKIDTUBE ASSEMBLY	1:20
DATE	07.06.08		

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Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____

Resolution: _____ **Disposition:** _____ **QA: N/C Closed:** _____ **Date:** _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

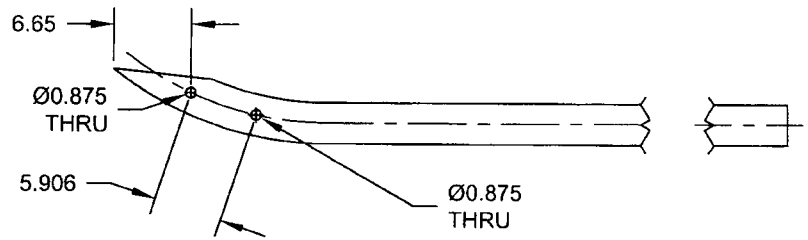
NOTE: Date & initial all entries

DRAWING NO.	TITLE		DART AEROSPACE USA, INC	D.E.O. NO.	SHEET NO.	SCALE
D3582	BK 117 SKIDTUBE ASSEMBLY	REV. A	ENGINEERING ORDER	D3582-A-1	SHEET 1 OF 1	NTS

DRAWN	CHECKED	MFG. APPR.	APPROVED	DE APPR.
DATE 09.04.06	DATE 04.04.06	DATE 09.04.06	DATE 09/04/06	DATE 09.04.06

FOR EASE OF MANUFACTURE AND TO ENSURE THE FIT OF BRISTOL WIRESTRIKE SKID GEAR DEFLECTOR:
UPDATE DIMENSIONING OF 2 FWD HOLES ON SHEET 1 AS SHOWN

IS:



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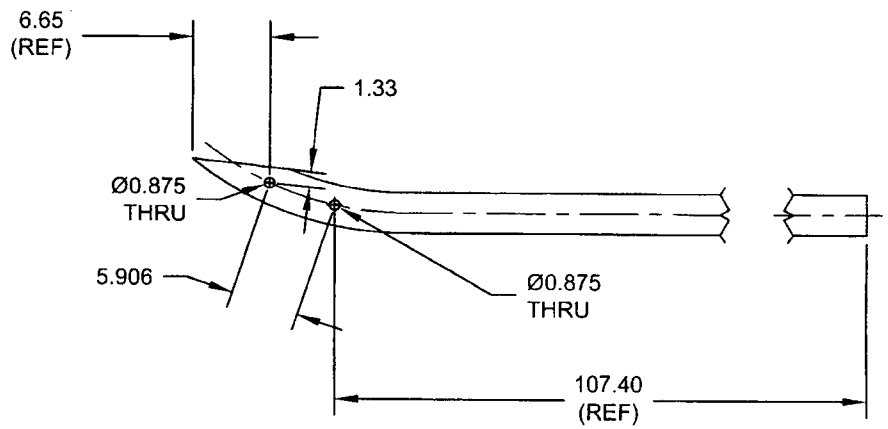

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09/04/22

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Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
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Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

NO. 263

AWS D17.1.2001
QUALIFICATION TEST RECORD

Name: Barclay Elliott
Job number: B72595
Part number: 5117 762 041
Description: 117
Welding Process: Tig[X] Mig[ ]
Base materiel: Aluminum
Current: AC[X] DC[ ]

TEST REQUIREMENTS AND RESULTS

Visual:	pass[✓]	fail[ ]
Penetration:	pass[✓]	fail[ ]

UNACCEPTABLE

Cracks:	pass[✓]	fail[ ]
Undercut:	pass[✓]	fail[ ]
Pin holes:	pass[✓]	fail[ ]
Overlap (cold lap)	pass[✓]	fail[ ]
Porosity (surface):	pass[✓]	fail[ ]
Coloration:	pass[✓]	fail[ ]

Qualifier [signature] **Date of Test Coupon** 11-08-17

Welder [signature] **Date of Test Coupon** 11-08-17

The above named individual is qualified in accordance with AWS D17.1.2001 to weld